### MR-1 CHECK OFF LIST FOR NON-CATEGORICAL COMPANIES

## ST. MARY'S HOSPITAL

# 2<del>6210003</del>

## 1. Month of MARCH 1, 2009 THRU MARCH 31, 2009

2.	Is Outlet # (8 digit) Correct?	(x)	N	N/A
3.	Is average Total flow-gal.day stated in space provided?	$\left( \begin{array}{c} Y \end{array} \right)$	N	N/A
4.	Is max. Total flow-gal day stated in space provided?	Y	N	N/A
5.	Is method used to calculate water stated?  APR 2009  APR 2009	(0)	, <b>N</b>	N/A
6.	Are number of working days stated?	0	N	N/A
7.	Are there any parameters which have exceeded PVSC Local Limits?	Y		N/A
8.	Is proper compliance/non-compliance statement provided?		N	N/A
9.	Have correct number of samples been submitted?	(E)	N	N/A
10.	Has PHC result been listed on MR-1 report?	Y	(N)	ΝA
11.	Has sample number been reported in space provided?	Y	N	N/A
12.	Have all regulated parameters been listed on MR-1?	(P)	N	N/A
13.	Has sample type been stated on MR-1?	(r)	N	N/A
14.	Have all samples been taken during this reporting period?	(Y)	N	N/A
15.	Has NJDEPE certified lab been used?	(Y)	N	N/A
16.	Have analytical results been submitted on copies of Laboratory stationery?	(Y)	N	N/A
17.	Have results been writen in space designated on MR-1?	(Y)	N	N/A
18.	Is correct method used to preserve samples stated on MR-1?	(Y)	N	N/A
19.	Has MR-1 been signed by authorized representative?	(Y)	N	N/A
20.	Has information been submitted on proper MR-1 form?	(2)	N	N/A
21.	Remove Arsenic from report if sampling not required	$\left( \begin{array}{c} Y \end{array} \right)$	N	N/A

### MR-1 CHECK OFF LIST FOR NON-CATEGORICAL COMPANIES

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		REATMENT MONITORING REPORT	APF	R 2 1 2009	ا المستند الم
1	642,300·×	<u>L</u>			li CENT
1	7 • 48 =	ssaic, NJ 07055	English and appealance of his half and many delice - and his half and his second	general (Miller), June Liver and General E. Collect B. 2 and 24 a 1946	
F	4,804,404.*	<u>Passaic, NJ 07055</u>			
C	4,804,404.÷ 31.=	OUTLET #: 1			
C	154,981.*	<u>iik</u> TELEPHONE #: (973) 365-513	<u>34</u>	t.	
N		OLD OUTLET DESIGNATION	N: 26210003	Å.	
ä	154 • 981 • × 1 • 1 =	Regulated Flow-gal/day	Average N/A	<u>Maximum</u> N/A	į
E	170,480.*	2009 Total Flow-gal/day YR.	154,981	170,479	
	0 • *	ivided by 31 days.			

	/ 5	MASS LIN	AIT OR CONCEN	TRATION	#OF	SAMPLE TYPE
PARAMETER		AVERAGE	MAXIMUM	UNITS	SAMPLES	
Zinc	Sample Measurement	0.102	0.102	ppm	1	COMP
ZIIIC	Permit Requirement	<u>1</u> .67	1.67	ppm	<u> </u>	
					122	
					PR SOUR	(A)
				13	Mount ial Dept	<u>  {     </u>   (**)
						-
			272222272			
		7.5	13	6.		
		1/30	Induj si Tuni	772		<u></u>
PVSC Form MR-	1 Rev:4 6/87 P1		AN!	No. 7178293031		A
		Ų.	299781V			

Certification of Non-use if applicable (use additional sheets): N/A



Compliance or non-compliance statement with compliance schedule (use additional sheets if necessary for every parameter used. PBI Regional Medical Center Hospital is in compliance with the PVSC local limits

Explain Method for preserving samples: <u>Laboratory preserved with 5ml nitric acid to a pH of <2</u>

I certify under penalty of law that this document and attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

403.6(a)(2)(ii) revised by 53 FR 40610, October 17, 1988

Signature of Principal
Executive or Authorized Agent

Joseph W. Pilewski

<u>Vice President, Enviro-Sciences (OF DELAWARE), Inc</u>
Type Name and Title

20-Apr-09 Date

PVSC Form MR-1 Rev:5 3/91 P2

#### Water Discharge Calculation Sheet

170,479

ST. MARY'S HOSPITAL

(PBI)

MARCH

2009

Total water used from meter reading (Cubic feet)	642,300
x 7.48 (gallons / cubic foo	t)
Total Usage (Gallons)	4,804,404
Evaporation (Gallons) 5% evaporation *	0
Volume Discharged (Gallons)	4,804,404
Volume Discharged For Month	
Daily Average Discharge (Gallons)	154,981

Month Last day 3 31

Daily Maximum Discharge (Gallons)

\* NOTE: In the months of January, February and March the PVSC DOES NOT ALLOW a reduction for evaporation.

70027224 <u>Meter 1</u>	70027225 <u>Meter 2</u>	70029946 <u>Meter 3</u>	60144298 <u>Meter 4</u>	Total	<u>× 100</u>	<u>x 7.48</u>
1,155	4,156	992	120	6,423	642,300	4,804,404
<u>R</u> Meter 1	3/13/09 3/13/09 3/13/09	C-L	<u>GF1</u> 5,207.00 <u>4.052.00</u> 1,155.00 <u><b>x.1</b></u> 1,155.00	CF2 1,599.00 1,599.00 0.00 <u>x 100</u> 0.00		100 cu.ft.)
Meter 2	3/13/09 3/13/09	C-L	1,893.00 <u>637.00</u> 1,256.00 <u>x 1</u> 1,256.00	1,457.00 <u>1,428.00</u> 29.00 <u>x 100</u> 2,900.00	4,156.00	
Meter 3	3/13/09 3/13/09	C-L	9,964.00 <u>9,142.00</u> 822.00 <u>x 1</u> 822.00	7,830.00 <u>7,813.00</u> 17.00 <u><b>x 10</b></u> 170.00		
Meter 4	3/13/09 3/13/09	C-L	2,485.00 2,473.00 12.00 <u>x 10</u> 120.00	વેં .	120.00	

Sample Summary

IAL Case No.

E09-02204

Client ESI, INC.

Project ST. MARY'S HOSPITAL (PBI) - R8MM

Received On 3/5/2009@12:37

Lab IDClient Sample IDDepth Top/BottomSampling TimeMatrixContainer02204-001SMH-030910/a3/.5/2009@07:45Aqueous1

Page 1 of 1

Mar 09, 2009 @ 02:42

Integrated Analytical Labs  $\sim$  273 Franklin Road, Randolph, NJ 07869  $\sim$  (973) 361-4252  $\sim$  Fax (973) 989-5288

### **TABLE OF CONTENTS**

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Laboratory Deliverables Check List	3
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Methodology Summary *	
Quality Control	_
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Calibration Summary	
Spike Sample Results Summary	
Duplicate Sample Results Summary	
Sample Tracking	
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<sup>\*</sup> Methodology is included in the IAL Project Information Page

### MATRIX QUALIFIERS

- A Indicates the sample is an Aqueous matrix.
- O Indicates the sample is an Oil matrix.
- **S** Indicates the sample is a <u>Soil</u>, <u>Sludge or <u>Sediment matrix</u>.</u>
- X Indicates the sample is an Other matrix as indicated by Client Chain of Custody.

### **DATA QUALIFIERS**

- **B** Indicates the analyte was found in the <u>Blank</u> and in the sample. It indicates possible sample contamination and warns the data user to use caution when applying the results of the analyte.
- **C** Common Laboratory Contaminant.
- **D** The compound was reported from the <u>D</u>iluted analysis.
- D.F. Dilution Factor.
- **E** <u>E</u>stimated concentration, reported results are outside the calibrated range of the instrument.
- J Indicates an estimated value. The compound was detected at a value below the method detection limit but greater than zero. For GC/MS procedures, the mass spectral data meets the criteria required to identify the target compound.
- MDL Method Detection Limit.
- MI Indicates compound concentration could not be determined due to Matrix Interferences.
- NA Not Applicable.
- ND Indicates the compound was analyzed for but Not Detected at the MDL.

#### REPORT QUALIFIERS

All solid sample analyses are reported on a dry weight basis.

All solid sample values are corrected for original sample size and percent solids.

Q - Qualifier

BBBI

### **CONFORMANCE / NONCONFORMANCE SUMMARY**

Integrated Analytical Laboratories, LLC. received one (1) aqueous sample(s) from ESI, INC. (Project: ST. MARY'S HOSPITAL (PBI) - R8MM) on March 5, 2009 for the analysis of:

- (1) Metal Cadmium
- (1) Metal Copper
- (1) Metal Lead
- (1) Metal Mercury
- (1) Metal Nickel
- (1) Metal Zinc

A review of the QA/QC measures for the analysis of the sample(s) contained in this report has been performed by:

Date

BDBZ

### LABORATORY DELIVERABLES CHECK LIST

Lab Case Number: E09-02204

		Check If Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report preparation.	<del></del>
2.	Table of Contents.	<u> </u>
3.	Summary Sheets listing analytical results for all targeted and non-targeted compounds.	
4.	Summary Table cross-referencing Field ID's vs. Lab ID's.	<b>✓</b>
5.	Document bound, paginated and legible.	
6.	Chain of Custody.	
7.	Methodology Summary.	
8.	Laboratory Chronicle and Holding Time Check.	
9.	Results submitted on a dry weight basis (if applicable).	<u> </u>
10.	Method Detection Limits.	
11.	Lab certified by NJDEP for parameters or appropriate category of parameters or a member of the USEPA CLP.	
12.	NonConformance Summary.	
	Jacque J. Berly  QC Reviewed by	<u>1</u> Date

### INTEGRATED ANALYTICAL LABORATORIES CONFORMANCE/NONCONFORMANCE SUMMARY METAL ANALYSIS

Lab Case Number: E09-02204

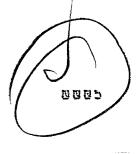
	<u>No</u>	
Calibration Summary Meet Criteria.		
ICP Interference Check Sample Results Meets Criteria (if applicable)		
Serial Dilution/Post Spike Summary Submitted (if applicable) / Meets Criteria		
Internal Standards Meet Criteria (if applicable)		
Laboratory Control Sample Summary Submitted (if applicable) / Meets Criteria	a	
Blank Contamination: If yes, list compounds and concentrations in each blank	C	
Matrix Chiles (Matrix Chiles Dunlingto Description Mant Chitario (If not list those		
Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria. (If not, list those		
compounds and their recoveries which fall outside the acceptable range).		
Extraction Holding Time Met. If not, list number of days exceeded for each sample:		
Analysis Holding Time Met. If not, list number of days exceeded for each sample:		
	owever, our o duplicate esent in the er acidic king any	
Additional Comments:  Sample(s) used for aqueous metals analyses contained varying levels of se Precautions were taken to use an aqueous representative of the sample. He experience has demonstrated that samples of this nature are very difficult to because the metals numbers are basically tied into the level of sediment prooriginal sample. Additionally, as the remainder of the sample is stored under conditions, some of the metals may continue to leach out into the water man reproduction of the original number impossible. The rough amount of sediments.	owever, our o duplicate esent in the er acidic king any	
Additional Comments:  Sample(s) used for aqueous metals analyses contained varying levels of se Precautions were taken to use an aqueous representative of the sample. He experience has demonstrated that samples of this nature are very difficult to because the metals numbers are basically tied into the level of sediment prooriginal sample. Additionally, as the remainder of the sample is stored under conditions, some of the metals may continue to leach out into the water may reproduction of the original number impossible. The rough amount of sediments the samples is as follows:	owever, our o duplicate esent in the er acidic king any	_
Additional Comments:  Sample(s) used for aqueous metals analyses contained varying levels of se Precautions were taken to use an aqueous representative of the sample. He experience has demonstrated that samples of this nature are very difficult to because the metals numbers are basically tied into the level of sediment prooriginal sample. Additionally, as the remainder of the sample is stored under conditions, some of the metals may continue to leach out into the water may reproduction of the original number impossible. The rough amount of sediments the samples is as follows:	owever, our o duplicate esent in the er acidic king any	

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# SUMMARY REPORT Client: ESI, INC. Project: ST. MARY'S HOSPITAL (PBI) - R8MM

Lab (	Case No.: E09-0220	4			
	Lab ID: Client ID: Matrix: Sampled Date	SM A	204-0 IH-0 queo 3/5/0	309 us	
PARAMETER(Units)	<u> </u>	Conc	Q	MDL	
Metals (Units)		(mg	z/L-p	om)	
Cadmium	•	ND		0.001	
Copper	i	0.062		0.008	
Lead		ND		0.002	/
Mercury		ND		0.0005 /	
Nickel	1	ND		0.004 /	
Zinc		0.102		0.008	

ND = Analyzed for but Not Detected at the MDL



### **METALS**

### Client/Project: ESI/ST. MARY'S HOSPITAL (PBI) - R8MM

Lab ID: E09-02204-001 Client ID: SMH-0309 Date Received: 3/5/2009

Matrix-Units: Aqueous-mg/L (ppm)

% Moisture: 100 Batch #: 093

Daton #. 000					Date	
Compound	Result	Q	DF	MDL	Analyzed	Method
Cadmium	ND		1	0.001	03/06/09	200.8
Copper	0.062		1	0.008	03/06/09	200.8
Lead	ND		1	0.002	03/06/09	200.8
Mercury	ND		1	0.0005	03/06/09	245.1
Nickel	ND		1	0.004	03/06/09	200.8
Zinc	0.102		1	0.008	03/06/09	200.8

0006

INTEGRATED ANALYTICAL LABORATORIES, LLC.

# METALS QUALITY CONTROL BLANK 1 RESULTS SUMMARY

Batch (Page) #:

093

Associated Lab - Case for Blank 1: -

02086, 02087, 02121, 02122, 02123, 02124, 02125, 02126, 02129, 02130

02127, 02128, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206

Matrix: Aqueous	Unit: ppb (µg/L)	Method: 200.8
	SAMPLE	REAGENT
ANALYTE	MDL	BLANK
Arsenic	2.00	ND
Cadmium	1.00	ND
Copper	8.00	ND
Lead	2.00	ND
Mercury	0.500	ND
Nickel	4.00	ND
Zinc	8.00	ND

Associated Sample for Blank 1:

•	02086-001; 02087-001; 02121-002; 02122-003	
	02123-001; 02124-002; 02125-002; 02126-002	
	02129-002; 02130-002; 02127-001; 02128-001	
	02131-002; 02186-001; 02193-001; 02195-001	
	02196-003; 02204-001; 02205-001; 02206-001	

### INTEGRATED ANALYTICAL LABORATORIES, LLC.

# METALS QUALITY CONTROL INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 0

Lab Case: 02086, 02087, 02116, 02119, 02121, 02122, 02123, 02124, 02125, 02126, 02127, 02128

02129, 02130, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206, 02208, 02209

Matrix: Aqueous Method: 200.8 Concentration/Units: ppb (μg/L)

ANALYTE	INST. MDL	ICB	CCB	CCB	CCB	ССВ	CCB
Arsenic	0.500	ND	ND	ND	ND	ND	ND
Barium	10.0	ND	ND	ND	ND	ND	ND
Cadmium	0.250	ND	ND	ND	ND	ND	ND
Chromium	2.00	ND	ND	ND	ND	ND	ND
Copper	2.00	ND	ND	ND	ND	ND	ND
Lead	0.500	ND	ND	ND	ND	ND	ND
Manganese	1.00	ND	ND	ND	ND	ND	ND
Мегсигу	0.250	ND	ND	ND	ND	ND	
Molybdenum	5.00	ND	ND	ND	ND	ND	ND
Nickel	1.00	ND	ND	ND	ND	ND	ND
Zinc	2.00	ND	ND	ND	ND	ND	ND

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### INTEGRATED ANALYTICAL LABORATORIES, LLC.

# METALS QUALITY CONTROL INITIAL & CONTINUING CALIBRATION BLANKS VERIFICATION

Batch (Page) #: 0

Lab Case: 02086, 02087, 02116, 02119, 02121, 02122, 02123, 02124, 02125, 02126, 02127, 02128

02129, 02130, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206, 02208, 02209

Matrix: Aqueous Method: 200.8 Concentration/Units: ppb (μg/L)

ANALYTE	INST. MDL	ССВ			
Arsenic	0.500	ND			
Barium	10.0	ND			
Cadmium	0.250	ND			
Chromium	2.00	ND			
Copper	2.00	ND			
Lead	0.500	ND			
Manganese	1.00	ND			
Molybdenum	5.00	ND			
Nickel	1.00	ND			
Zinc	2.00	ND	1		

EDDBA

### INTEGRATED ANALYTICAL LABORATORIES, LLC.

# METALS QUALITY CONTROL INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #:

093

Lab Case:

02086, 02087, 02116, 02119, 02121, 02122, 02123, 02124, 02125, 02126, 02127, 02128

02129, 02130, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206, 02208, 02209

Matrix: Aqueous Method: 200.8 Units: ppb (ug/L)

	INST.	ICV & CCV	IC	ICV		V	CC	:V	CCV	
ANALYTE	MDL	TRUE	FOUND	% R						
Arsenic	0.500	20.0	19.8	99.0	19.9	99.5	19.9	99.5	19.9	99.5
Barium	10.0	400	400	100	414	104	410	103	417	104
Cadmium	0.250	10.0	9.92	99.2	10.0	100	10.0	100	9.83	98.3
Chromium	2.00	20.0	20.7	104	21.1	106	21.0	105	21.3	107
Copper	2.00	50.0	49.6	99.2	50.2	100	50.1	100	51.3	103
Lead	0.500	10.0	10.2	102	10.4	104	10.3	103	10.3	103
Manganese	1.00	30.0	31.0	103	31.8	106	31.7	106	32.2	107
Mercury	0.250	5.00	5.38	108	5.33	107	5.35	107	5.38	108
Molybdenum	5.00	50.0	50.0	100	50.2	100	50.0	100	50.6	101
Nickel	1.00	80.0	78.1	97.6	81.1	101	80.1	100	83.1	104
Zinc	2.00	40.0	41.0	103	41.2	103	41.1	103	41.7	104

<sup>(1)</sup> Control Limits: Mercury 80-120; Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES, LLC.

# METALS QUALITY CONTROL INITIAL & CONTINUING CALIBRATION VERIFICATION

Batch (Page) #: 0

093

Lab Case:

02086, 02087, 02116, 02119, 02121, 02122, 02123, 02124, 02125, 02126, 02127, 02128

02129, 02130, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206, 02208, 02209

Matrix: Aqueous Method: 200.8 Units: ppb (ug/L)

	INST.	ICV & CCV	CC	CV	CC	:V	CC	:V		
ANALYTE	MDL	TRUE	FOUND	% R	FOUND	% R	FOUND	% R	FOUND	% R
Arsenic	0.500	20.0	19.9	99.5	19.8	99.0	19.7	98.5		
Barium	10.0	400	420	105	414	104	409	102		
Cadmium	0.250	10.0	9.80	98.0	9.83	98.3	9.76	97.6		
Chromium	2.00	20.0	21.3	107	21.3	107	21.1	106		
Соррег	2.00	50.0	51.7	103	51.1	102	50.1	100		
Lead	0.500	10.0	10.3	103	10.2	102	10.2	102		
Manganese	1.00	30.0	32.2	107	32.1	107	31.8	106		
Mercury	0.250	5.00	5.41	108						
Molybdenum	5.00	50.0	50.4	101	50.2	100	50.5	101		
Nickel	1.00	80.0	83.6	105	81.4	102	80.9	101		
Zinc	2.00	40.0	42.2	106	41.5	104	40.7	102		

<sup>(1)</sup> Control Limits: Mercury 80-120; Other Metals 90-110

INTEGRATED ANALYTICAL LABORATORIES, LLC.

## METALS QUALITY CONTROL

#### SPIKE SAMPLE RECOVERY

Batch (Page) #:

093

Lab Case:

02086, 02087, 02121, 02122, 02123, 02124, 02125, 02126, 02129, 02130

02127, 02128, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206

Concentration/Units: ppb (µg/L) Matrix: Aqueous CONTROL **ANALYTE** SSR1 SR1 %R1 SA1 SSR<sub>2</sub> SR2 %R2 SA<sub>2</sub> LIMIT %R Arsenic 391 ND 97.8 400 75-125 400 75-125 Cadmium 376 ND 94.0 400 75-125 402 8.42 98.4 Copper 400 75-125 ND 98.5 Lead 394 75-125 Mercury 9.94 ND 99.4 10.0 400 75-125 Nickel 389 ND 97.3 19.9 400 75-125 405 96.3 Zinc

SSR = Spike Sample Result

SA = Spike Added

SR = Sample Result

%R = Percent Recovery

NC = Non-calculable % R; Sample concentration > 4 x Spike Concentration.

QC Sample 1 02129-002

QC Sample 1 for following samples:

02086-001; 02087-001; 02121-002; 02122-003

02123-001; 02124-002; 02125-002; 02126-002

02129-002; 02130-002

QC Sample 2 02128-001

QC Sample 2 for following samples:

02127-001; 02128-001; 02131-002; 02186-001

02193-001; 02195-001; 02196-003; 02204-001

02205-001; 02206-001

#### INTEGRATED ANALYTICAL LABORATORIES, LLC.

### METALS QUALITY CONTROL **DUPLICATE SAMPLE RECOVERY**

Batch (Page) #:

093

Lab Case:

 $02086,\,02087,\,02121,\,02122,\,02123,\,02124,\,02125,\,02126,\,02129,\,02130$ 

02127, 02128, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206

	_	Matrix:	Aqueous	Conce	entration/Units: p	pb (μg/L)		_
	CONTROL				CONTROL			
ANALYTE	LIMIT I	SI	D1	RPD1	LIMIT 2	S2	D2	RPD2
Arsenic					NA	ND	ND	NC
Cadmium					NA	ND	ND	NC
Copper					20	8.42	8.69	3.16
Lead		·			NA	ND	ND	NC
Mercury					NA	ND	ND	NC
Nickel					NA	ND	ND	NC
Zinc			· _ · · · · · · · · · · · · · · · · · ·		20	19.9	18.7	6.22

S1 = Sample 1 D1 = Duplicate 1

NA = Not Applicable

NC = Non-calculable RPD due to result (s) less than the detection limit.

QC Sample 1 02129-002 QC Sample 1 for following samples:

02086-001; 02087-001; 02121-002; 02122-003

02123-001; 02124-002; 02125-002; 02126-002

02129-002; 02130-002

S2 = Sample 2

D2 = Duplicate 2

QC Sample 2 02128-001 QC Sample 2 for following samples:

02127-001; 02128-001; 02131-002; 02186-001

02193-001; 02195-001; 02196-003; 02204-001

02205-001; 02206-001

### INTEGRATED ANALYTICAL LABORATORIES, LLC.

# METALS QUALITY CONTROL LABORATORY CONTROL SAMPLE

Batch (Page) #:

093

Lab Case:

02086, 02087, 02116, 02119, 02121, 02122, 02123, 02124, 02125, 02126, 02127, 02128

02129, 02130, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206, 02208, 02209

	Matrix:	Aqueous		Unit: ppb (µg/L)					
		BSW1		BSW2					
ANALYTE	TRUE	FOUND	%R(1)	TRUE	FOUND	%R(1)			
Arsenic	400	391	97.8						
Barium				400	407	102			
Cadmium	400	399	99.8						
Chromium				400	413	103			
Copper	400	390	97.5	400	405	101			
Lead	400	396	99.0						
Manganese				400	416	104			
Mercury	10.0	10.6	106	10.0	10.7	107			
Molybdenum				400	381	95.3			
Nickel	400	386	96.5						
Zinc	400	400	100	400	411	103			

(1) Control Limits % Recovery = 85-115%

BSWI	BSW2
02086-001; 02087-001; 02121-002; 02122-003	02116-001~002; 02119-006; 02122-002; 02208-001
02123-001; 02124-002; 02125-002; 02126-002	02209-001~002
02129-002; 02130-002; 02127-001; 02128-001	
02131-002; 02186-001; 02193-001; 02195-001	
02196-003; 02204-001; 02205-001; 02206-001	

### INTEGRATED ANALYTICAL LABORATORIES, LLC.

### METALS QUALITY CONTROL

### **SERIAL DILUTIONS & POST SPIKES 2**

Batch (Page) #:

093

Lab Case: 02127, 02128, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206

Matrix: Aqueous Concentration/Units: ppb (μg/L)

	SERIAL I	DILUTION	%	POST	SPIKE	%
ANALYTE	SR	SDR	Difference	SPR	SA	Recovery
Arsenic	ND			395	400	98.8
Cadmium	ND			377	400	94.3
Copper	8.42			406	400	99.4
Lead	ND			410	400	103
Nickel	ND			395	400	98.8
Zinc	19.9			410	400	97.5

SR = Sample Result

SDR = Sample Dilution Result

SPR = Sample Post Spike Result

SA = Spike Added

Control Limits: (+) or (-) 10% Difference or 75 - 125% Recovery

QC Sample2: 02128-001

QC Sample 2 for following samples:

02127-001; 02128-001; 02131-002; 02186-001

02193-001; 02195-001; 02196-003; 02204-001 02205-001; 02206-001

### INTEGRATED ANALYTICAL LABORATORIES, LLC.

### METALS QUALITY CONTROL

### **IPC**

Batch (Page) #:

093

Lab Case:

02086, 02087, 02116, 02119, 02121, 02122, 02123, 02124, 02125, 02126, 02127, 02128

02129, 02130, 02131, 02186, 02193, 02195, 02196, 02204, 02205, 02206, 02208, 02209

Matrix: Aqueous Unit: ppb (μg/L)

		BSW1	
ANALYTE	TRUE	FOUND	%R(1)
Arsenic	50.0	50.3	101
Barium	50.0	50.7	101
Cadmium	50.0	50.5	101
Chromium	50.0	50.3	101
Copper	50.0	51.7	103
Lead	50.0	49.8	99.6
Manganese	50.0	52.1	104
Molybdenum	50.0	48.2	96.4
Nickel	50.0	51.0	102
Zinc	50.0	50.7	101

(1) Control Limits = 95-105%

## **CHAIN OF CUSTODY**

No. O2204 (Lab Use Only)



111 Howard Boulevard, Suite 108 Mount Arlington, NJ 07856

Phone: 973-398-8183 Fax: 973-398-8037

CLIENT: ST. MARY'S HOSPITAL (PBI) PROJE

PROJECT NAME: R8MM

DELIVERABLES: Reduced Data Deliverables

SEND REPORT TO: Bob Lawrence E-Mail: RLawrenc@Enviro-Sciences.com

		mple fication	Sampling Location				Sample	Sample Type		Analysis Required (code #)	# of Contain- ers	
	Lab	Field ID	Point		Matrix	Comp.	Grab					
		SMH- 0309	Process Wastewater	३।ऽ।वी	7:45			Aqueous	Х		10, 12, 13, 14, 15, 19	1
_												
F									-			

### **Note: PVSC Threshold Limits Required**

Method of Relinquish	ment: <u>Drop</u>	<u>Off</u>		, NamyeofLa	boratory: <u>IAL</u>	
Relinquished By: (Sign):	y m	Received ( By (Sign):	Oll	Mm (	Date/Time: 3/5/09 12:37	
Relinquished To Lab By: (Sign):		Received Fo By (Sign): _	эr Lab	Date/Time:		
Analysis Priority Pollutant Metals	Code	Analysis	Code	Analysis	Code	
Petroleum Hydrocarbons	01 02	Cadmium Chromium	10	Zinc	19	
Volatile Organics + 15	03	Copper	12			
Base Neutrals + 15	04	Lead				
Acid&Base/Neutrals	05	Mercury	14			
VO+15 + MTBE/TBA	06	Nickel	15			
Antimony	07	Selenium	16			
Arsenic	08	Silver	17			
Beryllium	09	Thallium	18			

Note: Report on CD NOT Required

\Grove\shared\Project Files\_NTFRS\_2b3b41cb\Hospital Group\Custody Chains\Semi-Annual\6 month chain SMP.doc, 2/26/2009



## **PROJECT INFORMATION**



Customer	ESI, INC.	P.O. #		
Contact	Bob Lawrence	Received 3/5/2009 12:37		
EMail	rlawrenc@enviro-sciences.com	Verbal Due 3/19/2009		
Phone	(973) 398-8183 Fax 1(973) 398-8037	Report Due 3/26/2009		
Report To		Bill To		
III Howard	d Blvd	III Howard Bivd		
Suite 108		Suite 108		
Mount Arlington, NJ 07856		Mount Arlington, NJ 07856		
Attn: Bob Lawrence		Attn: Bob Lawrence		
Report F	Format Reduced			
Addition	al Info State Form Field Sampling	Conditional VOA		

<u>Lab ID</u> <u>Client Sample ID</u> 02204-001 SMH-0309	Depth Top / Bottom Sampling Time n/a 3/5/2009@07:45	Matrix Unit Aqueous mg/L	# of Containers 1
Sample # Tests	Status OA Method		
001 Cadmium - Cd	In Process 200.8		
" Copper - Cu	In Process 200.8		
" Lead - Pb	In Process 200.8		
" Mercury - Hg	In Process 245.1		
" Nickel - Ni	In Process 200.8		
" Zinc - Zn	In Process 200.8		

March 07, 2009

### **SAMPLE RECEIPT VERIFICATION**

CASE NO: <b>E 09</b> 02	2204	CLIENT:	EST	
COC: COMPLETE / INCOMPLETE / INCOMPLETE /		( See Chain of C	Custody) Comments	
✓ = YES/NA × = NO				
✓ Bottles Intact ✓ no-Missing Bottles ✓ no-Extra Bottles				
Sufficient Sample Volume  no-headspace/bubb  Labels intact/correct  pH Check (exclude)  Correct bottles/presion  Sufficient Holding/Promote Sample to be Subco	les in VOs  VOs)¹ ervative rep Time' entracted			ocludes but is not limited to
SAMPLE(S) VERIFIED BY: CORRECTIVE ACTION RI	INITIAL	YES	DATE 3	5/09 O
CLIENT NOTIFIED:	YES	Date/ Time: _		NO
PROJECT CONTACT: SUBCONTRACTED LAB: DATE SHIPPED:				
ADDITIONAL COMMENTS:				
VERIFIED/TAKEN BY:	INITIAL MI		DATE 3.6.09	

REV 02/05

# Laboratory Custody Chronicle

IAL Case No.

E09-02204

Client ESI, INC.

Project ST. MARY'S HOSPITAL (PBI) - R8MM

Received On <u>3/5/2009@12:37</u>

Department: Metals			Prep. Date	<u>Analyst</u>	Analysis Date	<u>Analyst</u>
Cadmium - Cd	02204-001	Aqueous	3/ 6/09	Lisa	3/ 6/09	Wei
Copper - Cu	-001	Aqueous	3/6/09	Lisa	3/ 6/09	Wei
Lead - Pb	-001	Aqueous	3/6/09	Lisa	3/ 6/09	Wei
Mercury - Hg	-001	Aqueous	2/ 6/09	Lisa	3/ 6/09	Wei
Nickel - Ni	-001	Aqueous	3/ 6/09	Lisa	3/6/09	Wei
Zinc - Zn	-001	Aqueous	3/ 6/09	Lisa	3/ 6/09	Wei

Review and Approval:

Page 1 of 1

Mar 09, 2009 @ 02:42

 $Integrated\ Analytical\ Labs \sim 273\ Franklin\ Road,\ Randolph,\ NJ\ 07869 \sim (973)\ 361-4252 \sim Fax\ (973)\ 989-5288$